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Remarks

Reconsideration of the above-identified application is respectfully requested.

The Examiner has objected to the drawings under 37 CFR 1.83(a) as not showing every feature which is specified in the claims. Specifically, the Examiner states that the first and second ring seals of claim 3 are not shown in the drawings. However, applicants would like to point out that claim 3 does not recite first and second ring seals. Therefore, applicants submit that the drawings do not need to be corrected.

The Examiner has requested in paragraph 2 of the Office Action that the status of the priority applications be updated. Page 1 of the specification has accordingly been amended to update the status of these priority applications.

The Examiner has indicated in paragraph 3 of the Office Action that he has not considered any references which were cited in the parent application (U.S. Pat. App. No. 09/815,437) if they were not also cited on a form PTO-892 in the present application. However, this is contrary to the procedure set forth in the Manual of Patent Examining Procedure, which provides as follows:

The Examiner will consider information which has been considered by the Office in a parent application when examining (A) a continuation application filed under 37 CFR 1.53(b) A listing of the information need not be resubmitted in the continuing application unless the applicant desires the information to be printed on the patent.

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MPEP §609 I.A.2. The present application is a continuation application which was filed under 37 CFR 1.53(b), and the references which were cited in the parent application were considered by the Office. Therefore, applicants respectfully submit that, under the provisions of MPEP §609 I.A.2., the Examiner should also consider these references in the present application.

Claims 1-3, 6, 10, 11, 16 and 17 stand rejected under 35 U.S.C. 102(b) as being anticipated by Pritchett et al. (U.S. Patent No. 5,868,204). In the Examiner's opinion, Pritchett discloses a tubing hanger 21/37 which is mounted in a tubing spool 11 and which includes a production bore 45, first and second closure members 29, 51 which are mounted in the production bore, and first and second annular seals 65, (?) which are positioned between the tubing hanger and the tubing spool. Applicants respectfully submit, however, that the Examiner's interpretation of Pritchett is incorrect.

Contrary to the Examiner's assertion, Pritchett's tubing hanger does not comprise both of the components 21 and 37. Pritchett clearly states that the component 21 is the tubing hanger and that the component 37 is a separate tree cap which is mounted above the tubing hanger (column 2, lines 18 and 45-46). Furthermore, Pritchett's tubing hanger 21 and tree cap 37 have different functions. Consistent with the definition of "tubing hanger" appearing in the *Dictionary of Petroleum Exploration, Drilling & Production*, which is appended hereto as Exhibit A, Figure 1 of Pritchett shows that the tubing hanger 21 is the component which is used to suspend the production tubing 23 from the tree 11 (Hyne, *Dictionary of Petroleum Exploration, Drilling, & Production*, PennWell

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Publishing Co., 1991, p. 540). In contrast, Pritchett teaches that the tree cap 37 is used to seal the bore of the tree 11 above the tubing hanger (see column 2, lines 45-46). Moreover, the tubing hanger 21 and the tree cap 37 are installed in different running trips; the tree cap 37 is installed only *after* the tubing hanger 21 and production tubing 23 are installed (column 3, lines 13-23). Therefore, one cannot dispute that Pritchett's tubing hanger comprises only the tubing hanger 21, not the tubing hanger 21 and the tree cap 37.

With respect to independent claim 1, therefore, Pritchett does not disclose a tubing hanger having a production bore in which two closure members are mounted. As shown in Figure 1, only the first plug 29 is mounted in the production bore 25 of Pritchett's tubing hanger 21. The second plug 51 is mounted in the bore 45 of the tree cap 37, not in the tubing hanger 21.

Therefore, Pritchett does not anticipate claim 1. Furthermore, since claims 2, 3, 6 and 10 depend from claim 1, these claims are not anticipated by Pritchett for the reasons stated above.

With respect to independent claim 11, Pritchett does not disclose first and second pressure containing barriers which are each secured to the body of the tubing hanger and which each isolate both the production bore and the tubing annulus from a portion of the central bore that is located above the tubing hanger. Only a single pressure containing barrier is secured to Pritchett's tubing hanger 21. This pressure containing barrier consists of the plug 29 and the annular seal 31. Although Pritchett discloses the existence of a second pressure

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containing barrier, namely the plug 51 and the annular seal 49, these components are secured to the tree cap 37, not the tubing hanger 21.

Therefore, Pritchett does not anticipate claim 11.

With respect to independent claim 16, Pritchett fails to disclose a plug body which is securable in the production bore of the tubing hanger and around which first and second annular seals are positioned. Although Pritchett discloses a plug 29 in the production bore 25 of the tubing hanger 21, nowhere does Pritchett suggest that this plug supports two annular seals.

Therefore, Pritchett does not anticipate claim 16. Furthermore, since claim 17 depends from claim 16, this claim is not anticipated by Pritchett for the reasons stated above.

Claims 1-3, 6, 11, 16 and 17 stand rejected under 35 U.S.C. 102(e) as being anticipated by Milberger (U.S. Patent No. 6,050,339). In the Examiner's opinion, Milberger discloses a tubing hanger 21/37 which includes a production bore 45 and a production passageway, first and second closure members 29, 51 and first and second annular seals 31, 49. Applicants respectfully submit, however, that the Examiner's interpretation of Milberger is incorrect.

As with Pritchett, Milberger's tubing hanger does not comprise both of the components 21 and 37. To the contrary, Milberger clearly teaches that the component 21 is the tubing hanger and that the component 37 is a separate tree cap which is mounted above the tubing hanger (column 2, lines 9 and 26-27). Moreover, these components have different functions and are installed in separate running trips (column 3, lines 6-15). Therefore, one cannot contest that

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Milberger's tubing hanger comprises only the tubing hanger 21, and not the tubing hanger 21 and the tree cap 37.

With respect to independent claim 1, therefore, Milberger does not disclose a tubing hanger having a production bore in which two closure members are mounted. As shown in Figure 1, only the first plug 29 is mounted in the production bore 25 of Milberger's tubing hanger 21. The second plug 51 is mounted in the bore 45 of the tree cap 37, not in the tubing hanger 21.

Therefore, Milberger does not anticipate claim 1. Furthermore, since claims 2, 3 and 6 depend from claim 1, these claims are not anticipated by Milberger for the reasons stated above.

With respect to independent claim 11, Milberger does not disclose first and second pressure containing barriers which are each secured to the body of the tubing hanger and which each isolate both the production bore and the tubing annulus from a portion of the central bore that is located above the tubing hanger. To the contrary, Milberger teaches that only a single pressure containing barrier is secured to his tubing hanger 21. This pressure containing barrier consists of the plug 29 and the annular seal 31. Although Milberger discloses the existence of a second pressure containing barrier, namely the plug 51 and the annular seal 49, these components are secured to the tree cap 37, not the tubing hanger 21.

Therefore, Milberger does not anticipate claim 11.

With respect to independent claim 16, Milberger fails to disclose a plug body which is securable in the production bore of the tubing hanger and around

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which first and second annular seals are positioned. Although Milberger discloses a plug 29 in the production bore 25 of the tubing hanger 21, nowhere does Milberger suggest that this plug supports two annular seals. Moreover, although the plug 51 appears to support two annular seals 58, 60, this plug 51 is mounted in the bore 45 of the tree cap 37, not the tubing hanger.

Therefore, Milberger does not anticipate claim 16. Furthermore, since claim 17 depends from claim 16, this claim is not anticipated by Milberger for the reasons stated above.

Claims 1, 2, 6, 10, 11, 16 and 17 stand rejected under 35 U.S.C. 102(e) as being anticipated by Fenton (U.S. Patent No. 6,367,551). In the Examiner's opinion, Fenton discloses a tubing hanger 14/16 which comprises a production bore 13, first and second closure members 21, 19, and first and second annular seals (unnumbered in Figure 1). Applicants respectfully submit, however, that the Examiner's interpretation of Fenton is incorrect.

As with Pritchett and Milberger, Fenton's tubing hanger does not comprise both of the components 14 and 16. To the contrary, Fenton clearly teaches that the component 14 is the tubing hanger and that the component 16 is a separate tree cap which is mounted above the tubing hanger (column 2, lines 27-31). Therefore, one cannot contest that Fenton's tubing hanger comprises only the tubing hanger 14, and not the tubing hanger 14 and the tree cap 16.

With respect to independent claim 1, therefore, Fenton does not disclose a tubing hanger having a production bore in which two closure members are mounted. As shown in Figure 1, only the first plug 21 is mounted in the

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production bore 13 of Fenton's tubing hanger 14. The second plug 19 is mounted in the bore 20 of the tree cap 16, not in the tubing hanger 14 (column 2, lines 33-36).

Therefore, Fenton does not anticipate claim 1. Furthermore, since claims 2, 6 and 10 depend from claim 1, these claims are not anticipated by Fenton for the reasons stated above.

With respect to independent claim 11, Fenton does not disclose first and second pressure containing barriers which are each secured to the body of the tubing hanger and which each isolate both the production bore and the tubing annulus from a portion of the central bore that is located above the tubing hanger. To the contrary, Fenton teaches that only a single pressure containing barrier is secured to his tubing hanger 14. This pressure containing barrier consists of the plug 21 and an annular seal (the unnumbered seal shown just above the lateral bore 13a in Figure 1). Although Fenton discloses the existence of a second pressure containing barrier, namely the plug 19 and an annular seal (the unnumbered seal through which the leader line for reference number 16 passes), these components are secured to the tree cap 16, not the tubing hanger 14.

Therefore, Fenton does not anticipate claim 11.

With respect to independent claim 16, Fenton fails to disclose a plug body which is securable in the production bore of the tubing hanger and around which first and second annular seals are positioned. Although Fenton discloses a plug

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21 in the production bore 13 of the tubing hanger 14, nowhere does Fenton suggest that this plug supports two annular seals.

Therefore, Fenton does not anticipate claim 16. Furthermore, since claim 17 depends from claim 16, this claim is not anticipated by Fenton for the reasons stated above.

Claims 1-3, 10, 11, 16 and 17 stand rejected under 35 U.S.C. 102(e) as being anticipated by Baskett et al. (U.S. Patent Application Publication No. 2002/0011336 A1). In the Examiner's opinion, Baskett discloses a tubing hanger 10 which comprises a production bore 11, first and second closure members 24, 26, and first and second annular seals (?), 30. However, applicants respectfully submit that the Examiner's interpretation of Baskett is incorrect.

Contrary to the Examiner's assertion, Baskett's component 10 is a crossover assembly, not a tubing hanger. In Baskett's system, the tubing hanger 4 is landed in a wellhead 6, a tree 2 is connected to the top of the wellhead, and the crossover assembly 10 is supported in the tree 2 above the tubing hanger 4. In addition, the crossover assembly 10 does not support the tubing string 7. Rather, the tubing string 7 is supported by the tubing hanger 4. Thus, the crossover assembly 10 is not a tubing hanger. Nor is it structurally or functionally equivalent to a tubing hanger. To the contrary, the crossover assembly 10 merely provides a means for communicating fluid between corresponding passages in the tubing hanger 4 and the tree 2.

With respect to independent claim 1, therefore, Baskett does not disclose a tubing hanger having a production bore in which two closure members are

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mounted. Rather, Baskett teaches mounting the first and second plugs 24, 26 in the bore of the crossover assembly 10, not the tubing hanger 4.

Therefore, Baskett does not anticipate claim 1. Furthermore, since claims 2, 3 and 10 depend from claim 1, these claims are not anticipated by Baskett for the reasons stated above.

With respect to independent claim 11, Baskett does not disclose first and second pressure containing barriers which are each secured to the body of the tubing hanger and which each isolate both the production bore and the tubing annulus from a portion of the central bore that is located above the tubing hanger. To the contrary, Baskett teaches that the first and second plugs 24, 26 and the first and second seals 38, 40 are secured to the crossover assembly 10. As shown in Figure 4, the tubing hanger 4 appears to have only one plug 68 mounted in its bore 5. Moreover, Baskett does not disclose any specific number of seals between the tubing hanger 4 and the wellhead 6 (see paragraph 58, lines 7-9).

Therefore, Baskett does not anticipate claim 11.

With respect to independent claim 16, Baskett fails to disclose a plug body which is securable in the production bore of the tubing hanger and around which first and second annular seals are positioned. Although Baskett discloses a plug 68 in the production bore 5 of the tubing hanger 4, nowhere does Baskett suggest that this plug supports two annular seals.

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Therefore, Baskett does not anticipate claim 16. Furthermore, since claim 17 depends from claim 16, this claim is not anticipated by Baskett for the reasons stated above.

The Examiner has indicated that claims 4, 5, 7-9 and 12-15 would be allowed if they are rewritten in independent form to include the limitations of their base and intervening claims. However, these claims depend from claims 1 and 11, which applicants maintain are patentable. Therefore, applicants submit that claims 4, 5, 7-9 and 12-15 do not need to be rewritten.

The prior art made of record but not relied upon has been considered but is not believed to be pertinent to the patentability of the present invention.

In light of the foregoing, claims 1-17 are submitted as allowable.

Favorable action is solicited.

Respectfully submitted,



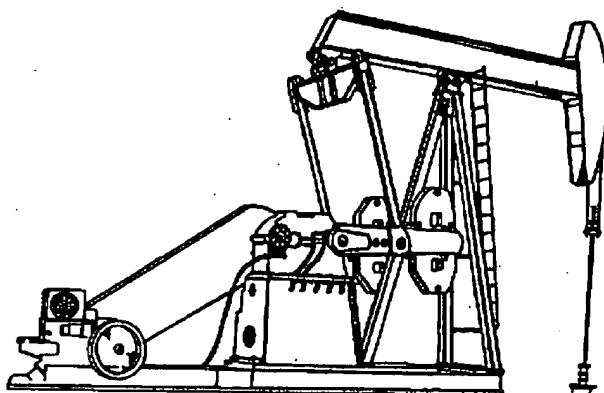
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Exhibit A

Dictionary of Petroleum Exploration, Drilling, & Production

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540 tubing anchor • tubing-retrievable mandrel

and for logging deviated wells. (*production tubing or tubing string, TBG, Tbg, or tbg*)

tubing anchor a downhole device that is similar to a packer but without a packing element and is attached to a string of tubing and clamps to the casing. A tubing anchor prevents the tubing from rising and falling with the motion of the sucker rods in a pumping well but does not restrict flow in the annulus. A tubing anchor is commonly used in artificial lift wells.

tubing bending a problem in gas and flowing oil wells when temperature and pressure changes cause the tubing to corkscrew in a helical pattern

tubing board the small platform near the top of a mast on a well servicing unit or workover rig. A member of the crew stands on the tubing board to rack tubing stands in fingers as the tubing is pulled from the well.

tubing broach a tool with graduated rings that have diamonds or are case hardened and sharpened. The tubing broach is run down a tubing string to deburr any metal and imperfections in the tubing before a service tool is run.

tubing collars or couplings short steel tubulars with internal threads that are used to connect tubing joints

tubing conveyed a downhole operation such as wireline well logging or perforating that is run on a coiled tubing string. Tubing conveyed is used in deviated and horizontal holes.

tubing-effect factor R divided by $(1 - R)$, in which R is the seat area (A_p) in square inches (in.^2) of a pressure valve on a gas lift system, divided by the total effective bellow area (A_b) in square inches. The tubing-effect factor is expressed as a percentage. *TEF*

tubing elevators a device used to grip tubing when it is run in or pulled out of a well. The tubing elevators are hung from the traveling block by bails. The tubing elevators are hinged in the back with a latch in the front so they can close around the tubing. Tubing elevators come in different sizes for different tubing sizes.

tubing-end locator a tool with a dog on a spring that is used to accurately locate the end of a tubing string in a well

tubing flow production from tubing in a well

tubing flow valve the valve on the wing of a Christmas tree. A tubing flow valve is used to open or close flow to the flowline. A tubing flow valve can also be found on the wellhead of a pumping well. (*flowline valve*)

tubing hanger a steel housing containing slips that is located on a wellhead and is used to suspend all or part of the weight of the production tubing string in the well and provides a pressure seal at the top of the tubing-casing annulus. The tubing hanger is held in place by the weight of the tubing and locking studs or by radial hold-down screws on the top of the tubinghead spool. A tubing hanger is sometimes called a doughnut.

tubinghead or tubing head spool a flanged steel fitting made of a body and hanger-packer mechanism (tubing hanger) that is part of the wellhead and is mounted on the top flange of the uppermost

casinghead. The tubinghead seals the annular space between the casing and tubing string while suspending the tubing string in the well. On a low-pressure well, the tubinghead is directly connected to the casing and not the casinghead.

tubing job a well workover consisting of pulling and running the tubing string. A well servicing unit is used.

tubingless completion a type of gas well completion used in gas wells that produce no liquids. The gas flows up small-diameter casing. A tubingless completion is also used in a geothermal or hot water well.

tubing packer a packer set in the tubing-casing annulus near the bottom of a tubing string. The tubing packer helps support the weight of the tubing string and protects the casing above the packer from corrosion by produced fluids. A tubing packer is a type of production packer.

tubing perforator a wireline device that uses either a mechanical punch or an explosive-activated punch to perforate tubing. The punch is designed to retract after the perforation is made.

tubing plug a retrievable plug that is set in a landing nipple in a tubing string. The tubing plug can retain pressure either above it (a circulating plug), below it, or in both directions.

tubing power tongs a wrenchlike device that is used on the floor of a drilling rig to hold tubing when they are made up or broken out

tubing pressure the pressure on the fluid in the tubing measured at the top of the well. Tubing pressure can be measured either when the well is flowing or shut in. Shut-in pressure is equal to casing pressure in gas wells with no fluid in the tubing or casing above the perforations. *TP*

tubing pump a type of sucker-rod pump that is run as part of the tubing string. The standing valve is set in a seating nipple. The plunger and traveling valve are run on the sucker-rod string. Tubing pumps can have either a) a common working barrel with a steel barrel connected to the bottom of the tubing string, b) a full-liner working barrel with a single steel tube machined in one piece, or c) a sectional liner consisting of an outside steel jacket with honed liners assembled end to end on the inside of the jacket. The plungers can be a) cup-equipped or soft-packed made of leather, rubber-impregnated canvas or synthetics, b) metal, or c) concentric tubes. Tubing pumps can have either a) a fixed standing valve that is attached to the bottom of the tubing or b) a removable standing valve. The tubing has to be pulled to pull the tubing pump, but the tubing pump has a greater displacement than an insert pump. A tubing pump is in contrast to a rod insert or casing pump. (*tubing sucker-rod pump*)

tubing-retrievable gas lift valve a gas-lift valve mounted on a tubing-retrievable mandrel. A tubing-retrievable gas lift valve was the first type of gas-lift valve, and the tubing had to be pulled to retrieve the valve. (*conventional gas lift valve*)

tubing-retrievable mandrel a short tubing joint (pup) with a lug for fitting a conventional gas lift valve. (*conventional or standard mandrel*)